PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Docket No: Q88874
Thomas LEVY, et al.	
Appln. No.: 10/541,694	Group Art Unit: 2443
Confirmation No.: 1929	Examiner: George C NEURAUTER

Filed: August 5, 2005

For: SIGNALLING IN CONTROLLED ACTIVE NETWORKS

SUBMISSION OF APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. The USPTO is directed and authorized to charge the statutory fee of $540.00 and all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880 via EFS payment screen. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is ALCATEL. The assignment was previously submitted and was recorded on August 5, 2005, at Reel 017291, Frame 0408.

II. RELATED APPEALS AND INTERFERENCES

To the knowledge and belief of Appellant, the Assignee, and the Appellant's legal representative, there are no other appeals or interferences before the Board of Appeals and Interferences that will directly affect or be affected by the Board's decision in the instant Appeal.

III. STATUS OF CLAIMS

Claims 1-16 are pending in the present application. Claims 1-16 stand finally rejected. The rejections of claims 1-16 are being appealed.

Claims 1-16 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's admitted prior art in view of DAN: Distributed Code Caching for Active Networks (Decasper, D. and Plattner, B., Proceedings of IEEE INFOCOM'98, April 1998, pp. 609-616).

A copy of the claims on appeal is set forth in an attached Appendix.

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. § 1.111 was filed on August 20, 2008 in which claims 1, 3, 4, 6 and 8-12 were amended and new claims 13-16 were added. The Amendment Under 37 C.F.R. § 1.111 and arguments for patentability are believed to have been entered and made of record, as indicated in the final Office Action dated October 20, 2008. Furthermore, a Response Under 37 C.F.R. § 1.116 was filed on January 15, 2009, and the Response Under 37 C.F.R. § 1.116 and arguments for patentability are believed to have been entered and made of record, as indicated in the Advisory Action dated January 22, 2009.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Description of the Independent Claims

The claims on appeal are explained as set forth below in reference to exemplary embodiments. The claims should not be limited to the embodiments disclosed.

1. An active telecommunications network comprising:

an active node (FIG. 1, element 11) comprising active code reception means and an active code execution environment (page 5, lines 14-16); and

a signaling control unit (FIG. 1, element 3; page 5, lines 23-27) comprising:

means for receiving a request (FIG. 1, element 5; page 5, lines 27-34) to set up a virtual circuit between a client terminal (FIG. 1, element 1) and a server terminal (FIG. 1, element 2);

a virtual circuit set-up means (page 5, lines 29-34); and

means controlled by the virtual circuit set-up means for sending active code to the active node (page 5, lines 34-36).

6. A signaling method for use in an active telecommunications network comprising an active node (FIG. 1, element 11) comprising active code reception means and an active code execution environment (page 5, lines 14-16), and a signaling control unit (FIG. 1, element 3; page 5, lines 23-27) comprising, means for receiving a request (FIG. 1, element 5; page 5, lines 27-34) to set up a virtual circuit between a client terminal (FIG. 1, element 1) and a server terminal (FIG. 1, element 2), virtual circuit set-up means (page 5, lines 29-34), and means

controlled by the virtual circuit set-up means for sending active code to the active node (page 5, lines 34-36), the method comprising:

a sending step of sending an appropriate active code from the signaling control unit to the active node (page 6, lines 27-30 and page 8, lines 16-21).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(A) Rejection of claims 1-16 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's admitted prior art in view of DAN: Distributed Code Caching for Active Networks (Decasper, D. and Plattner, B., Proceedings of IEEE INFOCOM'98, April 1998, pp. 609-616).

VII. ARGUMENT

A. 35 U.S.C. § 103(a): Claims 1-16 are patentable over Applicant's admitted prior art in view of DAN: Distributed Code Caching for Active Networks

The Examiner has rejected claims 1-16 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's admitted prior art (U.S. Pub. No. US 2006/0155834; hereinafter "AAPA") in view of DAN: Distributed Code Caching for Active Networks (Decasper, D. and Plattner, B., Proceedings of IEEE INFOCOM'98, April 1998, pp. 609-616; "DAN"). For at least the following reasons, Appellant traverses the rejection.

1. The AAPA in view of DAN does not teach or suggest the elements of claim 1, in particular, the AAPA in view of DAN does not teach or suggest a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node

Regarding claim 1, claim 1 recites an active telecommunications network comprising:

an active node comprising active code reception means and an active code execution environment; and

a signaling control unit comprising:

means for receiving a request to set up a virtual circuit between a client terminal and a server terminal;

a virtual circuit set-up means; and

means controlled by the virtual circuit set-up means for sending active code to the active node.

As discussed in the Response filed on January 15, 2009, the AAPA and DAN, individually or in combination, fail to teach or suggest, *inter alia*, "a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; a virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node," as recited in claim 1.

Turning first to the AAPA, the AAPA discusses ***background information*** which sets up the foundations upon which improvements have been made, the improvements representing the present invention. In particular, **the disclosure in the AAPA only makes general reference to prior art signaling control units which include a SIP proxy that enables such prior art signaling control units to communicate with a network using IP (IP network).**

The AAPA thus fails to teach or suggest, *inter alia*, "a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal," as recited in claim 1. The AAPA does not include any teaching or suggestion of a ***request*** to set up a virtual circuit. In fact, the AAPA is completely silent on the inclusion of or setting up any *virtual circuit* in general.

The Examiner alleges on page 5 of the final Office Action dated October 20, 2008 that the AAPA discloses on page 1, lines 5-24 that the prior art signaling control unit may be a SIP

proxy, which is known to set up virtual circuits for a communication session between a client and a server. However, even though the prior art signaling control units may include a SIP proxy, such a SIP proxy is merely disclosed to enable the prior art signaling control units to communication with a network. The SIP proxy is disclosed to regulate exchanges between data transfer application in real time over IP networks (page 1, lines 20-24). Therefore, by extending the general teaching of a SIP proxy as disclosed by the AAPA to further have the capability of setting up a virtual circuit between a client terminal and a server terminal, ***the Examiner necessarily is relying on improper hindsight, as the AAPA is completely silent on any setting up of a virtual circuit between terminals.***

The Examiner further argues in the Response to Arguments section on pages 2-3 of the final Office Action dated October 20, 2008 that the use of the SIP proxy in the IP network would allegedly provide links between network components and such links would allegedly disclose the claimed "virtual circuit." However, the SIP proxy as disclosed by the AAPA is only disclosed explicitly to allow signaling control units *to communicate with a network using the IP*, and to regulate exchanges between data transfer applications in real time over IP networks. With such a limited functionality as disclosed, the SIP proxy within the signaling control units of the AAPA is not taught or suggested to itself be a virtual circuit, or to even be capable of setting up a virtual circuit between a client terminal and a server terminal. Even assuming *arguendo* that the mere use of the SIP proxy within the signaling control unit of the AAPA could possibly provide a virtual circuit between IP network components, the AAPA still fails to teach or suggest any

request to set up a virtual circuit between any terminals. Again, the AAPA is thus silent on having any request to set up a virtual circuit.

Also, the AAPA's disclosure of a signaling control unit which may include a SIP proxy would not teach or suggest that the SIP proxy may ever set up a virtual circuit. Furthermore, reference has been made by the Examiner on page 5 of the final Office Action dated October 20, 2008 to RFC 2543, however, RFC 2543 also makes no mention of the SIP proxy *setting up a virtual circuit* or even receiving a request to set up such a virtual circuit. Again, the Examiner has relied upon improper hindsight obtained from the Applicants' own disclosure of the present invention in concluding that the AAPA's mere inclusion of a SIP proxy within a signaling control unit suggests the setting up of a virtual circuit.

The AAPA also fails to teach or suggest a signal control unit also comprising "a virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node," as recited in claim 1. As discussed above, the AAPA is silent on (1) the inclusion of a virtual circuit and (2) a means for receiving a request to set up a virtual circuit between a client terminal and a server terminal.

The Examiner has alleged on pages 5-6 of the final Office Action dated October 20, 2008 that "the Applicant did admit that the prior art disclose wherein active nodes receive active code in response to setting up a virtual circuit between a client and a server." However, the Examiner's statement is incorrectly characterizing the AAPA, because the AAPA is disclosing only that the active code to be deployed to an active node is determined from the client or user

terminal requesting the transfer of data. Nowhere in the AAPA is there any teaching or suggestion that the active code is sent to the active node *in response to setting up a virtual circuit between a client and a server*. Instead, the sending of the active code to the active node in the AAPA occurs after the code to be deployed is determined from the client or user terminal requesting the transfer of data, and is contained in the data stream received by the active node. Specifically, the active code in the AAPA is associated with the data stream by applications of a user and sent to the active node along with the data stream. Therefore, the AAPA clearly does not teach or suggest that the active node receives the active code *in response to setting up a virtual circuit between a client and a server*, as the Examiner has alleged.

For at least the aforementioned reasons, the AAPA thus fails to teach or suggest "a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; a virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node," as recited in claim 1.

DAN fails to remedy the deficiencies of AAPA.

DAN also fails to teach or suggest, *inter alia*, "a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; a virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node," as recited in claim 1. DAN fails to teach or suggest any of a virtual circuit, a means for receiving a request to set up a virtual circuit, a virtual circuit set-up

means, or means controlled by a virtual circuit set-up means for sending active code to the active node. In fact, DAN is completely silent on both setting up a virtual circuit as well and a request to set up a virtual circuit.

The Examiner on page 6 of the final Office Action dated October 20, 2008 alleges that DAN discloses on page 611 a system analogous to the AAPA. However, DAN does not teach or suggest any virtual circuit. Rather, page 611 of DAN only describes how DAN's Active Network Node (ANN) functions, particularly in regards to DAN's code server being a "cache" for DAN's active module code. Although DAN's disclosure does generally relate to receiving an active module from a code server, DAN however does not ever set up any virtual circuit between a client terminal and a server terminal. In fact, the ANN of DAN is disclosed to receive a connection setup request from a client and then forward such request to a video server (see step (1) of FIG. 2). DAN's code server then sends the active module to the ANN, which forwards the packet to the client. Therefore, the Examiner's allegation that DAN discloses a unit that sends active code to an active node upon a request to set up a virtual circuit between a server and a client is clearly incorrect, because the request made by the client in DAN is only for a connection setup between the client and the video server as shown in FIG. 2, and is not *a request to set up* ***a virtual circuit*** as claimed.

Therefore, due at least to the above-discussed deficiencies of the AAPA and DAN, neither the AAPA nor DAN, alone *or in combination*, teaches or suggests every element as recited by claim 1.

Accordingly, Appellant respectfully submits that claim 1 should be allowable because the AAPA in view of DAN does not teach or suggest all of the claimed elements. Claims 2-5, 13 and 14 are dependent claims which are also allowable at least in view of their dependencies as well as for their additionally recited elements.

2. The AAPA in view of DAN also does not teach or suggest the elements of claim 6

Regarding claim 6, for similar reasons as discussed above, the AAPA in view of DAN also does not teach or suggest "[a] signaling method for use in an active telecommunications network comprising an active node comprising active code reception means and an active code execution environment, and a signaling control unit comprising, means for receiving a request to set up a virtual circuit between a client terminal and a server terminal, virtual circuit set-up means, and means controlled by the virtual circuit set-up means for sending active code to the active node, the method comprising: a sending step of sending an appropriate active code from the signaling control unit to the active node," as recited by claim 6.

Therefore, Appellant respectfully submits that claim 6 should also allowable over the AAPA in view of DAN. Claims 7-12, 15 and 16 are dependent claims which are also allowable at least in view of their dependencies as well as for their additionally recited elements.

In view of the foregoing, Appellant submits that all the pending prior art rejections should be withdrawn.

The statutory fee of **$540.00** is being charged to Deposit Account No. 19-4880 via EFS Payment Screen. The USPTO is also directed and authorized to charge all required fees, except

for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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CLAIMS APPENDIX

CLAIMS 1-16 ON APPEAL:

1. An active telecommunications network comprising:

an active node comprising active code reception means and an active code execution environment; and

a signaling control unit comprising:

means for receiving a request to set up a virtual circuit between a client terminal and a server terminal;

a virtual circuit set-up means; and

means controlled by the virtual circuit set-up means for sending active code to the active node.

2. A network according to claim 1, characterized in that the signaling control unit further comprises:

an active code library; and

means for selecting active code in the library.

3. A network according to claim 2, characterized in that the signaling control unit further comprises active code compilation means.

4. A network according to claim 1, characterized in that the signaling control unit further comprises means for generating active code on the fly.

5. A network according to claim 1 adapted to use the Internet Protocol (IP).

6. A signaling method for use in an active telecommunications network comprising an active node comprising active code reception means and an active code execution environment, and a signaling control unit comprising, means for receiving a request to set up a virtual circuit between a client terminal and a server terminal, virtual circuit set-up means, and means controlled by the virtual circuit set-up means for sending active code to the active node, the method comprising:

a sending step of sending an appropriate active code from the signaling control unit to the active node.

7. A method according to claim 6, comprising a step prior to the sending step of deciding on a strategy for sending of the appropriate active code by the signaling control unit.

8. A method according to claim 7, comprising a step prior to the sending step and optionally prior to the strategy decision step of the signaling control unit determining the appropriate active code.

9. A method according to claim 8, comprising a step prior to the determination step of negotiation between the terminals and the signaling control unit of the characteristics of a communications session.

10. A method according to claim 9, comprising a step prior to the negotiation step of the signaling control unit receiving the virtual circuit request and setting up the virtual circuit.

11. A method according to claim 8, wherein, when the signaling control unit comprises an active code library and a selection means which selects active code in the library, the determination step comprises a selection by the signaling control unit of the appropriate active code in the library.

12. A method according to claim 8, wherein, when the signaling control unit comprises an active code generation means, the determination step comprises a generation of the appropriate active code on the fly by the signaling control unit .

13. A network according to claim 1, wherein the means controlled by the virtual circuit set-up means for sending active code to the active node reduces mismatching between stream characteristics required by an application and an instantaneous state of the active telecommunication network.

14. A network according to claim 1, wherein the client terminal transmits a data stream to the server terminal.

15. A method according to claim 6, wherein the means controlled by the virtual circuit set-up means for sending active code to the active node reduces mismatching between stream characteristics required by an application and an instantaneous state of the active telecommunication network.

16. A method according to claim 6, wherein the client terminal transmits a data stream to the server terminal.

EVIDENCE APPENDIX:

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

None.

RELATED PROCEEDINGS APPENDIX

Submitted herewith are copies of decisions rendered by a court or the Board in any proceeding identified about in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).

None.